

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DATA SUMMARY

Three Bar B Debris Basin

NAME OF RESERVOIR

60-37a

DATA SHEET NO.

Watershed burned over by wildfire in June 1959.

DAM	1. OWNER USDA - F. S.			2. STREAM Trib, of Rock Cr.			3. STATE Arizona									
	4. SEC. 2 TWP. 4 N RANGE 10 E			5. NEAREST P.O. Roosevelt 10 NW			6. COUNTY Gila									
	7. LAT 33° 43' " LONG. 111° 18' "			8. TOP OF DAM ELEVATION -			9. SPILLWAY CREST ELEV. -									
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-FEET		14. GROSS STORAGE, ACRE-FEET		15. DATE STORAGE BEGAN					
	a. FLOOD CONTROL										--					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
g. INACTIVE		N/A 1/		0.076		N/A 2/		0.23		8-1-59						
WATERSHED	17. LENGTH OF RESERVOIR - MILES				AV. WIDTH OF RESERVOIR - MILES											
	18. TOTAL DRAINAGE AREA 0.073 SQ. MI.				22. MEAN ANNUAL PRECIPITATION (14) 21.74 INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 0.073 SQ. MI.				23. MEAN ANNUAL RUNOFF (14) 1.25 INCHES											
	20. LENGTH 0.398 MILES		AV. WIDTH 0.183 MILES		24. MEAN ANNUAL RUNOFF (14) 4.87 AC.-FT.											
	21. MAX. ELEV. 4015		MIN. ELEV. 3305		25. ANNUAL TEMP.: MEAN RANGE											
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA, ACRES		32. CAPACITY, ACRE-FEET		33. C/I. RATIO, AC.-FT. PER AC.-FT.	
	Reg. 8-1-59		-		0		See Remark						0.23		0.05	
	10-1-60		1.17		1.17		4/									
	10-1-61		1.00		2.17											
	10-1-62		1.00		3.17											
	10-1-64		2.00		5.17											
	10-1-65		1.00		6.17											
	10-1-66		1.00		7.17											
	10-1-67		1.00		8.17											
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET				36. WATER INFL. TO DATE, AC.-FT.							
			a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE					
	10-1-60		30.05		17.05		19.89**		17.00		19.89					
	10-1-61		14.44		2.30		2.30		10.23		22.19					
	10-1-62		19.67		1.18		1.18		7.37		23.37					
	10-1-64		20.18		0.83		1.01		4.84		25.02					
10-1-65		21.88		1.11		1.11		4.24		26.13						
10-1-66		30.73		17.05		17.05		6.02		43.18						
10-1-67		17.42		3.66		3.66		5.73		46.84						
26. DATE OF SURVEY		37. 5/ PERIOD CAPACITY LOSS, ACRE-FEET				38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET										
		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR				
10-1-60		1.60		1.37		18.77		1.60 6/		1.37		18.77				
10-1-61		0.34		0.34		4.66		1.94		0.89		12.19				
10-1-62		0.00		0.00		0.00		1.94		0.61		8.36				
10-1-64		0.08		0.04		0.55		2.02		0.39		5.34				
10-1-65		0.01		0.01		0.14		2.03		0.33		4.52				
10-1-66		0.02		0.02		0.27		2.05		0.29		3.97				
10-1-67		0.00		0.00		0.00		2.05		0.25		3.42				
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM								
		a. PERIOD		b. TOTAL TO DATE		a. AV. ANN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE				
10-1-60		110*		44,969		44,969										
10-1-61				11,159		29,205										
10-1-62				0		20,029										
10-1-64				1,313		12,794										
10-1-65				328		10,829										
10-1-66				656		9,511										
10-1-67				0		8,124										

N/A - Not Applicable
* - Assumed
** - Partially Estimated

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR													
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
45. RANGE IN RESERVOIR OPERATION														
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.							
46. ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
47. REMARKS AND REFERENCES														
<u>1/</u> Entire pool is used to collect bed load sediment. <u>2/</u> Sediment and debris also captured above pool elevation. <u>3/</u> Each "survey" consists of data accumulated from measurements made after each appreciable sediment capture. <u>4/</u> Cross-sectioning or volumetric measurements; ranges or contours not used. <u>5/</u> Basin cleaned as needed to maintain capacity. <u>6/</u> Includes sediment volumes captured above spillway level.														
48. AGENCY MAKING SURVEY				Rocky Mtn. Forest and Range Expt. Sta.										
49. AGENCY SUPPLYING DATA				Same										
						50. DATE		9-10-71						

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SOIL CONSERVATION SERVICE

DATA SUMMARY

Three Bar B Debris Basin

CS-34 Rev. 6-66

NAME OF RESERVOIR

60-37a

DATA SHEET NO.

DAM	1. OWNER				2. STREAM				3. STATE							
	4. SEC.		TWP.		RANGE		5. NEAREST P.O.				6. COUNTY					
	7. LAT. ° ' "		LONG. ° ' "		8. TOP OF DAM ELEVATION				9. SPILLWAY CREST ELEV.							
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-FEET		14. GROSS STORAGE, ACRE-FEET		15. DATE STORAGE BEGAN					
	a. FLOOD CONTROL															
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
	g. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR				MILES				AV. WIDTH OF RESERVOIR				MILES			
	18. TOTAL DRAINAGE AREA				SQ. MI.				22. MEAN ANNUAL PRECIPITATION				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				SQ. MI.				23. MEAN ANNUAL RUNOFF				INCHES			
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF		AC.-FT.					
	21. MAX. ELEV.		MIN. ELEV.		25. ANNUAL TEMP.: MEAN				RANGE							
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA, ACRES		32. CAPACITY, ACRE-FEET		33. C/I. RATIO, AC.-FT. PER AC.-FT.	
	10-1-68		1.00		2.17		See Remark									
	10-1-69		1.00		10.17											
	10-1-70		1.00		11.17		4/						0.23		0.05	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET				36. WATER INFL. TO DATE, AC.-FT.							
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE			
	10-1-68		27.87		10.90		10.90		10.90		6.30		57.74			
	10-1-69		20.70		6.85		6.85		6.85		6.35		64.59			
	10-1-70		22.29		3.62		3.62		3.62		6.11		68.21			
	26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, ACRE-FEET				38. TOTAL SED. DEPOSITS TO DATE, ACRE-FEET									
		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR				
10-1-68		0.01		0.01		0.14		2.06		0.22		3.01				
10-1-69		0.00		0.00		0.00		2.06		0.20		2.74				
10-1-70		0.00		0.00		0.00		2.06		0.18		2.47				
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM								
				a. PERIOD		b. TOTAL TO DATE		a. AV. ANN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE		
10-1-68				328		7,211										
10-1-69				0		6,564										
10-1-70		110*		0		5,918										

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES

48. AGENCY MAKING SURVEY _____
 49. AGENCY SUPPLYING DATA _____

50. DATE _____